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A SURVEY OF PROFIT-SHARING AND BONUSES IN CHICAGO PRINTING-PLANTS

I. INTRODUCTION

During the recent period of prosperous business activity and of consequent scarcity of skilled labor, many employers felt the necessity of attempting to stabilize their work force, retain their "key men," and improve the efficiency and co-operation of individual employees. Among the measures widely considered and frequently utilized for these purposes were schemes for sharing profits or granting bonuses to workmen. Experiments along this line in an industry with a long record in the amicable adjustment of industrial friction should have a general significance. It is in consideration of this fact that the findings of a survey of profit- and bonus-sharing undertakings in a sample group of Chicago printing-plants are herewith presented.

Certain factors of direct import in determining the character of employment relations in the industry in Chicago may be enumerated as follows: (a) a skilled and intelligent personnel; (b) small size of the average business unit;¹ (c) large number and wide

¹ In a recent investigation of the industry in this city out of a group of 190 union shops over two-thirds were found to have less than ten journeymen employees in the compositor branch of the trade. See Frederick M. Babcock, *Apprenticeship and Labor Recruiting, Book and Job Printing Industry, Chicago, Illinois*, Northwestern University School of Commerce, Bureau of Business Research, p. 8.

distribution of individual establishments; (d) recent marked specialization in product or process; and (e) increased recognition

TABLE I
SUMMARY OF PROFIT-SHARING AND BONUS PLANS IN CHICAGO
PRINTING PLANTS*

	Number
Plants covered†.....	138
Plants in which straight wages relationship prevails.....	94
Existing profit-sharing schemes.....	2
Abandoned profit-sharing schemes.....	3
Existing "limited profit-sharing" schemes.....	3
Abandoned "limited profit-sharing" schemes.....	1
Existing cash-bonus schemes.....	28
Abandoned cash-bonus schemes.....	2
Existing stock-subscription schemes.....	3
Abandoned stock-subscription schemes.....	2
Existing task-and-bonus schemes.....	7
Abandoned task-and-bonus schemes.....	1
Group-insurance schemes.....	8
Sickness-benefit schemes.....	2
Joint informal group meetings (beginning).....	2

* One of the best definitions of profit-sharing is that used by the British Ministry of Labour in its report on *Profit-Sharing and Labour Co-partnership* (1920). Profit sharing is a method of payment resulting from an agreement freely entered into by an employer with his employees, "that they shall receive, in partial remuneration of their labour and in addition to their wages, a share, fixed beforehand, in the profits realized by the undertaking to which the profit-sharing scheme relates."

Other plans of paying bonus to employees considered here should be differentiated from profit-sharing. Limited profit-sharing is a form under which the profits are granted only to a limited group of executive, clerical, and high-salaried employees. Cash bonuses are gratuitous payments or dividends on wages, usually made annually by the employer and depending on length of service of each employee. Stock-subscription plans may or may not involve profit- or bonus-sharing, depending upon whether employees are merely invited to become purchasers of stock on credit, or are offered stock at less than market prices, or given dividends on a number of shares allotted to them with the privilege of coming into full ownership of the shares through the accumulation of dividends and other easy terms. Task-and-bonus payments involve the setting of standard time limits within which work is to be performed and for the performance of which a payment in addition to time wages is made, varying up or down as the amount of time saved varies.

See *Report on Profit-Sharing and Labour Co-Partnership in the United Kingdom*, Ministry of Labour (Intelligence and Statistics Department), 1920, p. 3. See also *Profit-Sharing*, by Albert Trombert, presented to the Congress of Bordeaux on behalf of the Society for the Practical Study of Profit-Sharing, November 23-24, 1912, pp. 15-22. The essential features of various forms of profit-sharing and their actual operations have been concisely outlined by Dr. Boris Emmett in a study, "Profit-Sharing in the United States," *United States Department of Labor Bulletin*, No. 208 (Bureau of Labor Statistics, 1916), pp. 8-9. The most recent comprehensive study is that of Messrs. Burritt, Dennison, Gay, Heilman, and Kendall, *Profit Sharing, Its Principles and Practice*, 1918 (Harper & Bros.). Other surveys of experience in the United States are: "Practical Experience with Profit Sharing in Industrial Establishments," *Research Report No. 29* (June, 1920), National Industrial Conference Board; *Profit Sharing by American Employers*, The National Civic Federation, New York, 1920.

† It should be noted that the total of schemes exceeds the number of firms covered in the investigation, because some of the 138 firms had more than one of the schemes in force.

that labor, which constitutes about 29 per cent of the cost of the completed printed product,¹ should be given similar attention to

¹ See "Annual Composite Statement of Department Costs Prepared by the Department of Research of the United Typothetae of America," *Typothetae Bulletin*, XIV (October, 1920), 103-7.

that given other elements of cost. It is difficult to trace the exact effects of the interaction of these factors upon one another.

An investigation of a representative number of plants was made by the Industrial Relations Department of the United Typothetae of America in the fall of 1920, in order to find out which were operating profit-sharing, bonus, or related schemes in the field of industrial relations, and what their experience had been. Conferences were held with employers and managers and their representatives in 138 firms, and, where desirable, visits through the mechanical departments of the plants were made. It is quite probable that a greater number of schemes were identified within these plants than could be found in any other equal number of plants chosen from the 1,300-2,000 printing concerns in the city, because by special inquiry effort was made to visit those concerns known in the trade either to be operating or interested in some such schemes. The great majority of plants covered were selected, however, without regard to any known interest in industrial-relations projects. All sizes and conditions of plants, whether union, open, or non-union, and ranging from the one-man shop to large-scale establishments with one or two thousand employees are represented. With few exceptions the firms covered are Typothetae members.¹ It is thought, therefore, that the results disclosed reflect the true conditions. Table I summarizes the number of existing and of abandoned profit-sharing, bonus, and related schemes in 138 plants.

II. PROFIT-SHARING SCHEMES IN FIVE PLANTS

Five profit-sharing plans were investigated. Of these, two have just this year been discontinued and a third is being abandoned. All the five plants have shared profits for very short periods—only one having an experience which extends beyond three years, and two having begun profit-sharing in 1920. On account of this

¹ Acknowledgment is hereby made to the Department of Industrial Relations, and to the *Typothetae Bulletin*, of the United Typothetae of America, for permission to publish the data for this article, a part of which appeared in the December, 1920, issue of the *Bulletin*. The criticisms and conclusions made herein are to be understood as reflecting the views of the author, and not of the United Typothetae.

limitation, any conclusions drawn from the data are subject to qualification. However, it is thought that some valuable observations may be made concerning the experience of these plants.

The plants range in size from those having 20 to those having 300 employees. Of 675 employees engaged in the plants, 436, or 64.5 per cent, were eligible to participate in the distributed profits. In Plants Nos. 3, 4, and 5 all employees were eligible to participate. In Plant No. 1 all pieceworkers were excluded from the profit-sharing; and in Plant No. 2, where the scheme is being abandoned, only the eleven original participants out of one hundred employees are continued. In Plant No. 2 a year's continuous service has been required before the employee is eligible to participate; in Plant No. 4, three months. The employees are in no case required to file an application or assume any direct responsibility in order to participate.

In 1919 three of the plants distributed a total of approximately \$25,000 among 386 employees. The weekly bonus to an employee thus averaged about \$1.25; or, it is estimated, an addition to annual income of from 2 to 4 per cent.

Four of the plants are operating union shops. In Plant No. 5, a non-union shop, the employees became dissatisfied after the inauguration of the profit-sharing scheme, and upon presenting demands secured increased wages. Three employers informed the investigator that the majority of the participating employees did not noticeably appreciate the profit-sharing privilege or display greater efficiency or interested efforts on the job. The workmen seemed to accept the bonus payments as a matter of right and as additional wages. In no case was a trade union reported as having offered any opposition to profit-sharing.

The avowed purposes of the schemes are to stabilize the working force of the plants, and to unite permanently the interests of employees with those of a particular firm by encouraging continuous service.

The employers in four of the plants consider the scheme which they have been trying a failure—from the standpoint of securing any greater interest and loyalty on the part of employees to the company. The employer who reported his scheme successful has

had an experience of less than a year with it—an insufficient period for a safe conclusion.

None of the five plants has assembled the data necessary to show on a comparative basis whether actual improvement has taken place among the employees in the regularity of their employment or whether the amount of labor replacement necessary to maintain the standard work force has decreased after the introduction of profit-sharing. Two of the five employers, however, reported that they were convinced there had been some improvement. It would require an intensive study of accurate employment records to determine what change has occurred.

III. LIMITED PROFIT-SHARING SCHEMES IN FOUR PLANTS

Limited profit-sharing serves as an automatic means for increasing the salaries of executive employees and offers them substantial inducements to remain in continuous service. Of 138 plants investigated, four reported experience in sharing profits with employees in executive or clerical positions. The company determines in each plant the conditions of eligibility, the proportion of profits allotted to employees after setting aside sums to cover all legitimate expenses and interest on the investment and the individual bonus. In Plant No. 1 the employer came to the conclusion from a two years' experience that sharing profits with the plant superintendent, while at first highly satisfactory to both parties, was impracticable. The reason advanced was that it inevitably became a cause of dissatisfaction and complaint in periods of small and declining profit yields. Plants Nos. 2, 3, and 4, employing a total of 540 employees, are distributing a portion of profits to 28 employees in the managerial and salaried class. Of these, all but 6 are in Plant No. 2. The employers in these three plants are satisfied with the results of their experience.

Plant No. 2, a union shop with 400 employees, shares part of the profits among 22 employees in executive or clerical positions. This plant uses a rating system, instead of percentages, in computing the shares. The company officials make the individual ratings in consideration of the three following factors: (a) an estimate of what average profits are expected to be; (b) the individual's

record in the management of his department and his value to the company; (c) his probable earning ability with any other company. After this rating the employer in conference with each employee informs him that he may become a participant, and that for computing his share he has been rated at a certain number of points. Approximately 30 per cent of the total profits are allotted under this scheme for distribution. To compute a single share, divide the sum for distribution by the total number of assigned points and multiply by the number of points agreed upon for the individual employee.

The company-owners prefer the use of a "point" rather than a percentage for computing purposes, since "point" is a more flexible term, for (a) adjustments of possibly inequitable shares which might go to some individuals under a rigid percentage method of calculation may be made by the company without offensive discrimination; (b) explanations of any differences in individual shares under the point system of rating are easier; and (c) opportunity is offered for frequent conference by the employer with the employee, as occasion may require. This opportunity arises from the fact that an employee's points are subject to an increase or decrease as the current record of his department for efficient management shows up in relation to the trend of the company's earnings. In case of a change in the record of any department the employee in charge may be easily called into consultation by the employer regarding the situation and with mutually advantageous results.

Plant No. 3, a union shop with 40 employees, allots 10 per cent of the profits annually to the plant superintendent, and Plant No. 4, an open shop with 100 employees, distributes 10 per cent of the profits among five executives in proportion to their respective salaries. Plant No. 3 began its scheme in 1917, Plant No. 4 in 1920.

In Plant No. 2 the weekly bonus to the 22 executive employees averages from \$10 to \$30. The bonus to the employees in Plants Nos. 3 and 4 runs from \$4.25 to \$50. In plant No. 2 the employer in the course of five years' experience noticed a tendency on the part of some of the participating employees to question the accuracy of the calculation of their individual bonuses.

IV. STOCK-SUBSCRIPTION SCHEMES

The fact that employees hold shares in the undertaking with which they are connected does not, in itself, constitute profit-sharing. The element of profit-sharing comes in only when such shares have been acquired by the employee on specially favorable terms. This form of profit-sharing has been adopted in three plants.¹

These three companies afford to employees in continuous service for various designated periods the opportunity to purchase capital stock on the instalment plan along with other advantageous terms.

The scheme as first set up in Plant No. 1 at the time of incorporation in 1892 was complete labor copartnership—all employees in the plant being also the only stockholders. But with a profitable and expanding volume of business the company's experiment has actually resulted in restriction of stock-ownership to those employees who originally participated. The more recent employees do not find it advantageous or attractive to purchase stock at its market value. This is shown by the fact that no employees have bought any of the shares within the last nine years. However, the older employee stockholders are directly represented on the board of directors, the management of the company adheres to the original co-operative idea, and the offer of capital stock for sale to any employee still stands.

The terms of purchase require the eligible employee in Plant No. 2 to pay monthly instalments by deductions from wages, at the rate of 1 per cent of the total amount of stock purchased, with a limit of five years to complete payment. No interest is charged for deferred payments. Any dividends paid on the stock are credited from the date of the employee's subscription to his account and applied in final settlement of his obligation. Afterward all dividends go direct to the employee. The stock sold to employees of this plant is non-voting preferred stock.

¹ Four private printing-plants in large Chicago mercantile establishments participate in their stock-subscription schemes open to all employees; but since these are not distinct commercial printing-plants they are not included in this report. Five commercial plants were found in which one or more foremen, salesmen, superintendents, or selected older employees have been permitted to purchase on favorable terms limited amounts of stock. Two plants were also reported in which stockholding by employees had been discontinued because unsatisfactory.

The management of Plant No. 2 in selling its employees one-tenth of its capital stock desired apparently to reward their older employees additionally for past performances as well as to induce greater co-operation on their part in the future. There is no provision for the issuance of any more stock to employees, and the company has not announced any plan involving further departure from the regular type of corporation ownership.

The employers in Plant No. 3 hold to the opinion that the stock-subscription scheme as announced this year will bring increased realization of the mutual interests of employees and employers and encourage a spirit of friendly co-operation for their common good. The scheme is regarded as a solution for labor disturbances. The plan of the major owners of the company comprehends permitting the employees gradually in the course of, say, twenty years to acquire ownership of the whole capital stock.

An employee in Plant No. 3 may subscribe only for shares amounting in value to one-third of his yearly salary. The other two companies set no limit. A regulation of this character is designed to secure a wider distribution of holdings among employees and to prevent concentration of ownership in the hands of the high-salaried group.

In case of termination of employment before full payment of the subscription, two of the three companies require that the shares of stock shall revert to the company. This is done in order to keep control of the stock and to stabilize the working force. In one case accumulated dividends also revert to the company. The full amounts of payments made on subscriptions so canceled are returned to the subscriber with interest.

During the first years of experiment with stock-subscription schemes some employers consider it advisable to restrict narrowly the right to transfer stock to anyone outside the company. Only one of the three companies reported on here places any restriction of the transference of its shares. In this case it is required in the subscription agreement that any employee desiring to sell his holdings must for a period of ten days first give the company an option to buy his shares.

The par value amount of shares owned by employees in Plant No. 1 is \$9,000, or 60 per cent of the total capital stock of the company; in Plant No. 2 the amount is \$100,000 or 10 per cent of the total; and in Plant No. 3, \$100,000, or 25 per cent of the total capital stock. These amounts are owned in the form either of preferred or of common stock by 280 of 850 total employees; or by 20 per cent, 25 per cent, and 50 per cent of the employees in each of the three plants respectively. The number of \$100 par value shares owned in two of the plants averages less than three per subscribing employee; and of \$10 shares in the other plant averages ten. The financial advantages thus accruing to the subscribing employees may be summarized as the following: (a) a relatively lower price for shares of stock than the prevailing market value; (b) absence of interest charges on unpaid balances of stock subscription; (c) dividends credited to subscribing employee from date of subscription for shares, these dividends ranging from 7 to 10 per cent on an estimated average.

The three plants are operating as union shops. The attitude of workmen personally in Plants Nos. 2 and 3 may be seen in the fact that all the capital stock offered for sale to employees was readily taken. One company reported decided opposition on the part of the members of one of the unions in its employ to its stock-subscription scheme. Officials of this union protested against its members holding stock in the company. The reason for the objection was that in the event of a strike, or any labor differences, the employees would be less loyal and active in support of union measures, because of their interest in the company as stockholders. The outcome was that approximately \$20,000 of stock subscribed for by the union members involved was bought back by the company.

V. CASH-BONUS SCHEMES IN TWENTY-EIGHT PLANTS

The term "profit-sharing" may be used in a broad sense to include schemes involving more or less systematic annual distributions of cash bonuses in some fixed relation of earnings and varying with the length of continuous service of individual employees. True profit-sharing, however, differentiates itself from

cash bonus distributions in the fact that (*a*) the amount of profits to be allocated to the workers varies directly, and rises or falls proportionately, with an increase or decrease in the profits realized; (*b*) the employer engages to distribute to his workers a share of net profits; and (*c*) the actual percentage of this sharing is fixed in advance.¹

The theory underlying the majority of cash-bonus schemes is the recognition by employers of the fact that the longer a person remains in the continuous service of a firm the greater is the value of his services. Frequently the employers desire also in this way to give their employees some part in the greater earnings of the company during exceptionally prosperous periods. The extra compensation is purely a gratuity, bears no relation to individual efficiency, and is wholly voluntary on the part of the employer and may be changed or discontinued by him at any time with or without notice.

Cash-bonus schemes as analyzed in Table II were found in use in twenty-eight plants.² Of the twenty-eight, one began paying cash bonuses in 1912, two in 1915, three in 1917, four in 1918, ten in 1919, and eight in 1920. The number of plants paying bonuses thus shows a steady increase and now exceeds the total of profit-sharing, limited profit-sharing, and task-and-bonus schemes found in the investigation. Seventeen of the plants operate on a union-shop, seven on an open-shop, and four on a non-union basis.

In a majority of the schemes the only prerequisite for participation is a period of continuous employment, varying from a maximum of ten years downward to a week. Usually the longer the service the greater the bonus. Two of the plants pay a weekly bonus for regularity and promptness at work; another pays at the

¹ See note to Table I, p. 522.

² Two other companies with about 60 employees each reported that after three years' experience with annual cash bonuses they had this year discontinued them. The reasons given for their discontinuance were that the employees showed no greater loyalty to the firm, but were inclined to expect and demand the bonuses as permanent additions to income. In one plant some employees complained about differentials in the bonus payments; and in the other the entire force went on a strike to secure payment of the bonus again this year.

end of each year a bonus of 10 per cent on total deductions permitted by the employees from his wages for deposit by the company in a savings fund, and two other plants pay any beginner at the trade

TABLE II
ANALYSIS OF TWENTY-EIGHT CASH-BONUS SCHEMES

PLANTS		DATE OF ADOPTION	NUMBER OF EMPLOYEES	CONDITIONS OF ELIGIBILITY	BASIS OF COMPUTING BONUS	TIME OF PAYMENT
No.	Organized or Un-organized					
1...	Union	1912	130	10-15 years' service	\$1 to \$2 per week	Annually
2...	Union	1915	25	1 year's service	\$2.50 flat (per year)	Annually
3...	Union	1917	225	2 years' service	\$1 for each year up to 10 years	Annually
4...	Open	1919	100	6 months' service	\$10 for each year of service	Annually
5...	Union	1919	34	1 year's service	\$10 for each year of service	Annually
6...	Union	1919	50	1 year's service	\$50 flat	Annually
7...	Open	1920	1,200	Weekly on time	\$1 per week; \$1.50 after first week	Monthly
8...	Union	1917	43	Employment as executive	\$100 to \$150 flat	Annually
9...	Union	1918	60	Employment as executive	\$100 to \$1,000 flat	Annually
10...	Union	1919	150	Employment as executive	10 per cent of salary	Annually
11...	Open	1917	11	Employment with company	1 week's wages	Semi-annually
12...	Non-union	1918	350	1-10 years' service	3-10 per cent of wages	Annually
13...	Union	1918	50	Employment with company	5 per cent of wages and week's vacation with pay	Annually
14...	Union	1919	400	10 months' continuous employment with company	5 per cent of week's wages	Monthly
15...	Union	1919	100	Employment with company	1 week's wages	Annually
16...	Open	1919	45	1 year's service	1 week's wages	Annually
17...	Union	1920	300	Continuous employment with company	3 per cent of yearly wages	Annually
18...	Union	1920	30	6 months' employment with company	1 week's wages	Annually
19...	Union	1919	14	Employment with company	1 week's vacation with pay	Annually
20...	Open	1918	5	Employment with company	1 week's vacation with pay	Annually
21...	Non-union	1919	30	Employment with company	1 week's vacation with pay	Annually
22...	Union	1920	300	1 year's service with company	1 week's vacation with pay	Annually
23...	Open	1915	50	Attendance upon training school	\$1 per week (260 weeks)	At end of training period
24...	Non-union	1920	334	Attendance upon training school	\$1 per week (260 weeks)	At end of training period
25...	Union	1920	35	Employment with company	10 per cent of weekly savings deductions	Annually
26...	Non-union	1920	150	Employment with company	\$1 a week for attendance, and not being late	Weekly
27...	Union	1920	285	Employment with company	\$1 a week for attendance, and not being late	Weekly
28...	Open	1919	40	Employment with company	Arbitrary allotment on basis of service and amount of wages (about \$5 weekly)	Annually

who completes his training a sum that the company has accumulated by depositing \$1.00 weekly throughout the training period in a savings bank.

The amount of the bonus is determined arbitrarily by the management of each plant. It may be a flat sum, or a flat sum increasing with the length of service, or the equivalent of one week's wages, or one week's vacation with pay, or a percentage of the employee's total annual earnings. The twenty-eight plants pay cash bonuses to 3,142 out of a total of 4,546 employees, or to 69 per cent of them. Twenty-two of the twenty-eight plants pay bonuses to all employees, inclusive of the executive and clerical force; and six plants pay only to employees in the mechanical department.

VI. TASK-AND-BONUS SCHEMES IN SEVEN PLANTS

Task-and-bonus systems involve an application of scientific management principles to the operations of a shop or plant. This plan of wage payment is based on individual efficiency and gives a reward additional to wages for certain results. Its essential features have been discussed so generally that detailed description is unnecessary.

Seven plants were found which use task-and-bonus methods in one or more mechanical departments.¹ Certain main facts about these seven task-and-bonus schemes are presented in Table III. It will be observed from the table that of the seven plants, two operate all mechanical departments on the task-and-bonus basis; one uses it in all except the composing department, which is now being surveyed for its installation; one linotype-composition concern was using it; and three other plants are using it for certain work in the pressroom or in the bindery.

The class of work in which tasks have been standardized for performance within certain limits varies in the different plants and departments from gathering or stringing in the bindery to difficult composition and make-ready jobs. It should also be noted that

¹ In the bindery of one plant employing twenty-five workers a task-and-bonus scheme was used for a few weeks this year. It was discontinued on account of the opposition of the bindery girls.

TABLE III
ANALYSIS OF SEVEN TASK-AND-BONUS SCHEMES

FIRM	No.	DATE OF ADOPTION	No. OF EMPLOYEES	MECHANICAL DEPARTMENTS	No. OF EMPLOYEES ON BONUS WORK	METHOD OF CALCULATING BONUS	TIME OF PAYMENT	AMOUNT OF BONUS	CLASS OF WORK	EFFECT ON PRODUCTION	
										Estimated Percentage of Increase	Employers' View
1.....	Non-union	1910	2,250	All	All in mechanical and electrical departments	16 $\frac{1}{2}$ -20 per cent on hourly rate for week's work for doing jobs within time limits; smaller bonuses begin at 75 per cent efficiency	Weekly	Average of \$8.38 for 50 men, week of June 4-9 in catalog department	Book and catalog printers and binders	25-33	Quite favorable
	Non-union	1913	50	All except composing room	40	35, 25, and 10 per cent on hourly rate for day's work for doing jobs within time limits; A, B, or C standard time limits respectively	Weekly	\$1.50 to \$2.00 a day	Envelope manufacturing and printing	10-50	Entirely favorable
3.....	Non-union	1920	150	All	125	\$6 for each machine-hour run in excess of 150 hours in month; pro rata to employees on basis of wages; and a special \$1 for each machine-hour gained in month; $\frac{1}{4}$ to pressman and $\frac{1}{4}$ to each of 2 assistants	Monthly	\$8.00 to \$40.00 monthly	Automatic tag printing machine works	17	Satisfied of increase in output
4.....	Union	Prior to 1906	200	Make-ready and run in pressroom	150	A certain bonus for each thousand beyond a fixed number* *And a gratuity for others on other work	Weekly, Quarterly, and annually	Approximate maximum \$6 a week	Catalog and editions	Without question has increased production
5.....	Union	1919	25	Linotype composing	8	20 cents per thousand ems for all over 40,000 ems per 8-hour day	Weekly	\$2.60 to \$7.80 daily	Type-setting	Bonus spurred production
6.....	Union	1920	600	Bindery	30	10 cents per thousand sheets for work beyond 22,000 sheets per 8-hour day	Weekly	\$2 weekly	General printing	Helps production
7.....	Open	1920	50	Bindery	20	14 cents additional for work done in excess of 2,000 pieces per hour	Monthly	\$0.70 to \$39.00 weekly	Hand work, gathering, etc.	25-60	Satisfied with results

task-and-bonus schemes are completely established in all departments only in large-scale plants. The expense of installation and the volume of work performed in them make it possible and profitable to subdivide all grades of work for performance by specialists, giving the workmen specialized processes to perform.¹

Of the 3,325 total employees in the seven plants approximately 2,623, or 78.8 per cent, are engaged on the task-and-bonus basis.

The methods of calculating the bonus are as follows: (a) The efficiency rate of the individual may be used to determine his bonus. The rate of efficiency is determined by the ratio of standard to actual time. The bonus on the hourly rate begins in general in Plant No. 1 with 75 per cent efficiency. The bonus varies more or less arbitrarily for different rates of efficiency, and at 100 per cent efficiency amounts usually to 20 per cent of the hourly wage.

Time studies are also made and standard shop conditions provided in Plant No. 2 in order to determine the time limits for doing the work in the most efficient and remunerative manner. Bonuses of 35, 25, and 10 per cent on the hourly rate are paid for certain amounts of work if performed respectively in A, B, or C standard times. In each of the Plants Nos. 4, 5, 6, and 7, a fixed rate of bonus of a certain amount in addition to time wages is paid for each thousand units of work performed in excess of a stated task.

b) A collective bonus may be used, as in Plant No. 3, where an additional percentage on wages is paid on increased production in a part of the shop or in the shop as a whole. A standard monthly operation for the tag-printing machines in this plant is fixed at 150 machine-hours.² A bonus of \$6.00 per machine is paid to all shop employees for each machine-hour operated or gained in excess of 150 hours a month. The total sum of the \$6.00 bonus payments is prorated among individuals on the basis of their wages.³ In

¹ It is roughly estimated by one employer that approximately \$150,000 has been invested in the installation and developing of the bonus system in his plant.

² There are seventeen automatic machines in the plant.

³ To calculate an employee's share of the collective bonus, multiply his weekly wages by number of days at work in the month to get the number of points assigned

addition, a special bonus of \$1.00 is paid to the pressman and his two assistants attending a machine for every machine-hour gained in the month. One-half of this bonus goes to the pressman and one-quarter to each of his assistants.

Slow and inefficient performances on task work reduce in any case the possible amount of bonus. In Plants Nos. 1 and 2 any deductions for spoilage or inferior quality of work are made from the bonus and not from wages. If a spoilage occurs and the entire bonus of the responsible person is taken away, any balance of a deduction is never carried over to the next week or the next month.

It will be observed from the table that increases are estimated to have been realized in the output under the task-and-bonus schemes, ranging from 17 to 50 per cent in three plants. The management of the companies in all plants were wholly convinced that production was greater than it would have been under the old methods.

Of the seven plants operating mechanical departments in whole or in part on a task-and-bonus basis, it will be observed four are non-union or open shops, and three are union. The three plants where task and bonus are used in a comprehensive form are non-union. This is on account of the inveterate hostility of organized labor to task-work schemes as hitherto operated. In one union shop certain operations continue as task-and-bonus work without active union opposition because for many years those operations have been conducted on this method. If another union shop where a bonus on output was offered and paid for a time during the past year, union opposition resulted in its discontinuance. In two other union plants certain operations in the bindery are task-and-bonus work. The union in these cases does not favor the method, but for strategic reasons has not yet made its opposition the occasion for a clash and a final adjustment. Some of the union-shop employers reported that they were restrained from installing in their plants a complete task-and-bonus system by union opposition.

the employee. Divide the sum total of the points of all employees into the total amount of extra compensation to be paid, and multiply by the individual employee's number of points. The result will be his share.

SUMMARY: EXPERIENCE WITH VARIOUS FORMS OF PROFIT-SHARING,
BONUSES, AND TASK-AND-BONUS METHODS

What does experience in the use of various profit-sharing and bonus schemes by these printing-plants in Chicago show?

I. PROFIT-SHARING AND LIMITED PROFIT-SHARING

1. Of five profit-sharing schemes three were discontinued because the employers considered the results disappointing and unsatisfactory.

2. Of four limited profit-sharing schemes for managerial and salaried employees, one was discontinued because it became a source of friction and dissatisfaction for both parties.

3. Profit-sharing with heads of departments, executive and clerical employees has been continued longer and regarded as more practicable by employers than when all employees are included.

4. Profit-sharing may be used in small, medium-sized, or large-sized plants. Small plants are especially fitted for its introduction on account of the close personal relations of employer and employees.

5. Of the nine plants where either profit-sharing or limited profit-sharing was introduced, seven were union shops and two non-union. In none of them has opposition by a union developed.

6. One employer, in particular, discovered from his experience with limited profit-sharing the need of guarding against lack of confidence by employees in the calculation of individual bonuses.

7. Experience shows that profit-sharing is most likely to be workable only as a "fair-weather" proposition. Its usefulness and fitness to survive are tested best when there are small or no profits to share. The test question is, Can it be depended upon to stimulate attention to work, efficiency, and co-operation in periods of declining business?

II. STOCK-SUBSCRIPTION SCHEMES

Shareholding by employees has been introduced for the purpose of improving industrial relations and particularly for stabilizing employment among the working force. Experience with schemes for this purpose shows:

1. The field for the use of stock-ownership as an aid to the employer in meeting his labor difficulties is limited to those employees

to whom the stock proposition appeals. In any plant there is likely to be a considerable proportion of employees uninterested in the scheme. Shareholding places upon employees a larger responsibility and a risk of loss to which they are unaccustomed and from which some would prefer to remain free. In the case of others the effect may be to arouse greater interest and care in their work.

2. Forfeiture of stock and accrued dividends on termination of employment, and making long the periods within which to pay the instalments on stock subscriptions tend to have the effect of holding the subscriber in the employ of the company. Provisions of this character, however, should not be made to retard any freedom of movement promising to result in the employee's improvement.

3. There is a possibility of union opposition to shareholding by union members.

4. Employee shareholding, as far as introduced, has not operated as a panacea for labor unrest.

III. CASH BONUSES

1. Cash-bonus schemes are in force in twenty-eight plants, but were discontinued in 1920 in two other plants because they were considered a source of complaints, rivalry, and friction among employees.

2. A bonus is designed to reward employees for length of service, as well as to share with them some of the extra gains from a prosperous business period.

3. The bonus schemes were entirely voluntary, involved no contractual responsibility on the part of employees, and were controlled and might be discontinued at any time by the employer.

4. The bonus as usually paid is in essence an arbitrary dole and has no necessary relation to the individual enterprise or output of the employee.

5. Employees in a majority of the schemes regarded bonus payments as permanent additions to their annual income.

6. Some employers considered that bonuses suggest to employees that they demand new wage increases, and that in this way a bonus scheme operates to raise wages without a corresponding increase in individual effort.

7. Employers were convinced that the cash bonuses have not effected any noticeable improvement in the loyalty, co-operation, or efficiency of employees.

IV. TASK-AND-BONUS SCHEMES

The results of the use of task-and-bonus methods of work and wage payment may be summarized:

1. Of seven plants two operate all mechanical departments on task-and-bonus work, and another operates all departments except one where time studies are in progress preparatory to its introduction.

2. One concern was discontinuing its use because union employees felt compelled to refuse task-and-bonus payments. Some union employers felt the restraint of union opposition and were prevented by it from extending the bonus scheme throughout their plants.

3. Three plants are using task work and bonus payments only to a limited extent in the pressroom or in the bindery. In the strict sense, these plants as a whole operate on the straight wages system.

4. Relatively large-scale plants are best adapted for the introduction of a task-and-bonus scheme. Reasons for this are: (a) large volume of business with resulting possible subdivisions of the work of the trade into simpler processes; (b) heavy capital investment necessary; and (c) greater strength to withstand union opposition.

5. All the plants in which the task-and-bonus scheme is in full operation are non-union shops. Any employer adopting a production-bonus scheme has to encounter the bitter antagonism of union labor.

6. The employers, whether open, non-union, or union shop, are unanimous in reporting that production per employee is greater when employees are on task-and-bonus work.

GENERAL CRITICISM AND DEFECTS OF PROFIT-SHARING

Analysis of the details of the various schemes of profit-sharing herein investigated reveals certain features that may be commended

and others that may be questioned. Among the commendable things may be mentioned:

1. These schemes, even though on an experimental basis, show that the employers are forward-looking and co-operative in their attitude toward their labor and industrial-relations problems. It may be emphasized that the spirit in which any scheme of this character is administered has more to do with its success than its particular provisions.

2. Provision under two of the schemes for the quarterly payment of the bonus in the form of cash is a good point. The more frequently the payments are made the greater the confidence of employees, and the more acceptable and satisfactory the scheme is likely to be.

Some of the more serious defects of the schemes are the following:

1. The employers, or the boards of directors of the companies, reserve the power to alter or terminate the profit-sharing at their own discretion. Thus the employees have no assurance that extra exertion on their part will be rewarded.

2. The administration of the schemes is one-sided—the employees having no direct representation or control in their operation. The fuller confidence and co-operation of employees would more probably be secured if they were themselves given some practicable share in the control of the schemes.

3. The basis for apportioning net profits between capital and labor, the reasons for the particular divisions decided upon, and the method of calculating an individual bonus are not made clear to the employees. This tends to misunderstanding and to doubt of the employer's motives, and may cause employees unjustly to suspect that the company is retaining for itself excessive profits.

4. Annual payment of the bonus is a defective provision of profit-sharing schemes. The period between payments is too long to expect the typical employee to show sustained interest on account of the extra compensation.

5. If profit-sharing is to appeal to employers, as a permanent business proposition, and not merely as a vague welfare project, it must justify its use on economic grounds. Employees do not desire

the benevolence or charity of their employers, nor do employers conduct business for such purposes. This means that if profit-sharing is to earn its way, the plant adopting it must have an organization, management, or habits of work among the workmen which are in need of improvement. A plant already on its most efficient basis of operation can obviously gain little by a general profit-sharing offer.

6. The economic basis for profit-sharing is often indistinct and uncertain. The employers adopting it may profess to a vague belief that the promise of a variable annual dole out of profits has induced employees to become more interested and less wasteful workers. But the employer rarely attempts to determine by accurate checks whether profit-sharing has effected any measurable improvement in quality or quantity of output, reduced the rate of labor replacement, or diminished absenteeism and unrest among the workmen. Such checks could be utilized to advantage.

7. There is a danger from the company's standpoint that the individual bonuses paid when profits are highest may be demanded as permanent additions to wages. The employee becomes accustomed to a higher annual income, and unless the higher level of income and consumption can be maintained there will be complaint and dissatisfaction.

8. There is danger from the employee's standpoint that the bonus may serve to keep wage scales from advancing regularly with the market rates. Under most profit-sharing schemes the employee has no assurance that this will not be the case. He thus has continued cause for dissatisfaction.

9. An indispensable condition for satisfactory industrial relations is mutual confidence between employers and employees. Experience shows clearly that employers who have adopted and administered profit-sharing have taken for granted the confidence of the workmen, and so neglected to make adequate provision to secure and maintain it. The consequence has been that the workmen are reported as failing to show any greater interest in or loyalty to the company after the introduction of profit-sharing than previously.

One way to overcome the distrust of the workmen would be to open the books of the company under any desirable safeguards and restrictions for the inspection of any employee, or of a committee, or representative of the employees at regular intervals. This would, it is true, constitute wide departure from the prevailing practice in such matters, but if it removed the source of suspicion and unrest it should be worth while.

10. A fundamental reason for ineffectiveness of profit-sharing schemes is that none has been devised in which each individual is allowed free scope for personal achievement. Personal ambition is a more powerful incentive to exertion than a desire for the general welfare. The few misplaced drones, who do the loafing and share equally in the profits with the rest, under co-operation are sure to drag the better man down toward their level.

11. Workmen are always willing to share the profits, but they are neither able nor willing to share the losses. Furthermore, it may be neither practicable nor just that they should share either the profits or the losses, since these may be due in great part to causes entirely beyond their influence or control, and to which they do not contribute.

CRITICISM OF TASK-AND-BONUS PLAN

1. Task-and-bonus schemes bring with them possibilities of enormous increase in productive efficiency.

2. Emphasis upon knowledge of facts as to efficient plant organization and upon measurement of actual work accomplished by each man as a basis for wages suggests the value of a concrete method of approach to all other aspects of industrial problems. Among these other aspects about which facts should be gathered are the effects of task work upon the longevity, health, absenteeism, and regularity of employment of the workers.

3. Efficiency-bonus schemes as administered heretofore are defective because arbitrary judgment is depended upon to decide whether bonus payments shall begin in a particular plant at $66\frac{2}{3}\%$, 75, or other per cent of a standard-time performance, what the rates of bonus as well as the standard time limits themselves shall be,

and what, if any, penalties and deductions should be imposed for spoilage and inferior work. However well-intentioned the management of a plant may be, the power thus to set time limits for efficient work and to alter them as conditions change may be easily misused in actual operation by subordinates so as to undermine the morale of the working force.

4. Any bonus scheme under which it is impossible for the workmen to understand how to calculate their individual bonuses each week is a source of mistrust, discontent, and complaint. These conditions invariably tend to produce an excessive labor turnover.

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